

ABSTRACT

[1103] Techniques to process data for transmission in a time division duplexed (TDD) communication system. In one aspect, the frequency response of a forward link is estimated at a base station based on reverse link transmissions (e.g., pilots) from a terminal. Prior to a data transmission on the forward link, the base station determines a reverse transfer function based on the pilots transmitted by the terminal, "calibrates" the reverse transfer function with a calibration function to derive an estimate of a forward transfer function, and preconditions modulation symbols based on weights derived from the forward transfer function. In another aspect, the terminal estimates the "quality" of the forward link and provides this information to the base station. The base station then uses the information to properly code and modulate data prior to transmission such that the transmitted data can be received by the terminal at the desired level of performance.

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